

Serial No. 08/472,876

Docket No. TRD 001 IA

improved harmonic quality and sound source separation compared to audible sound reproduced from the input audio signal.

40. (Thrice Amended) An apparatus [for enhancing the quality of an input audio signal having a band of frequencies with a high end and a low end, said apparatus] comprising:

a source of an input audio signal having a band of frequencies with a high end and a low end; and

a circuit connected to said source to receive said input audio signal and operatively adapted such that when [an] said input audio signal having a frequency band with a high end and a low end is transmitted therethrough, the input audio signal is distorted so as to increase in amplitude as per increasing frequencies from a reference frequency toward the high end and up to an amplitude peak at a high frequency and, after the high frequency, decrease in amplitude as per increasing frequencies toward the high end, and so as to increase in amplitude as per decreasing frequencies from the reference frequency toward the low end and up to an amplitude peak at a low frequency and, after the low frequency, decrease in amplitude as per decreasing frequencies toward the low end, where the reference frequency separates the band of frequencies into a band of high frequencies and a band of low frequencies, and whereby an enhanced audio signal is produced such that audible sound reproduced from the enhanced audio signal exhibits a perceptively improved harmonic quality and sound source separation compared to audible sound reproduced from the input audio signal.

#### REMARKS

Initially, applicants wish to call to the attention of the Examiner the following commonly assigned, copending patent applications: 1) U.S. Serial No. 08/700,728, entitled **APPARATUS AND METHOD FOR THE HARMONIC ENHANCEMENT OF ELECTRONIC AUDIO SIGNALS**, filed August 13, 1996; 2) U.S. Serial No. 08/909,807, entitled **APPARATUS AND METHODS FOR THE HARMONIC ENHANCEMENT OF ELECTRONIC AUDIO SIGNALS**, filed August 12, 1997; and 3) U.S. Serial No.